

# **Aviation Investigation Final Report**

Location: Warrenton, Virginia Accident Number: ERA10CA355

Date & Time: July 5, 2010, 11:00 Local Registration: N33554

Aircraft: Piper J3C-65 Aircraft Damage: Substantial

**Defining Event:** Hard landing **Injuries:** 2 None

Flight Conducted Under: Part 91: General aviation - Personal

### **Analysis**

According to the pilot, he was taking off from runway 2, a 2,000-foot-long, 150-foot wide, turf runway. About halfway down the runway, at an altitude of 80 to 100 feet above ground level, the pilot realized that the airplane "was not climbing particularly well." The pilot elected to perform a precautionary landing because the airplane was not going to clear trees located near the end of the runway. He turned the airplane and attempted to land it in a field to the right of the grass strip. The pilot stated that he had a "rough landing," substantially damaging the left wing of the airplane. The pilot further stated the preflight and engine run-up were "good" before the accident flight. He commented that the decreased performance of the airplane was due to the hot and humid day, the airplane was full of fuel, and he had a passenger in the airplane. The pilot noted that his total flight experience was approximately 200 hours; of which, about 125 hours were in the same make and model as the accident airplane. The recorded weather at an airport located 2 miles north of the accident site, included winds from 300 degrees at 7 knots, clear skies, and a temperature of 33 degrees C.

### **Probable Cause and Findings**

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's improper flare during a precautionary landing, which resulted in a hard landing.

## Findings

Personnel issues	Incorrect action performance - Pilot
Aircraft	Landing flare - Incorrect use/operation

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## **Factual Information**

## **History of Flight**

Landing-flare/touchdown	Hard landing (Defining event)
Landing-flare/touchdown	Abnormal runway contact

#### **Pilot Information**

Certificate:	Private	Age:	19,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Rear
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Without waivers/limitations	Last FAA Medical Exam:	August 13, 2008
Occupational Pilot:	No	Last Flight Review or Equivalent:	January 19, 2010
Flight Time:	200 hours (Total, all aircraft), 125 hours (Total, this make and model), 150 hours (Pilot In Command, all aircraft), 100 hours (Last 90 days, all aircraft), 65 hours (Last 30 days, all aircraft)		

### **Aircraft and Owner/Operator Information**

Aircraft Make:	Piper	Registration:	N33554
Model/Series:	J3C-65	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	14028
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	March 31, 2010 Annual	Certified Max Gross Wt.:	1220 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	CONT MOTOR
ELT:	Installed, not activated	Engine Model/Series:	A&C65 SERIES
Registered Owner:	On file	Rated Power:	65 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

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## Meteorological Information and Flight Plan

Conditions at Accident Site:Visual (VMC)Condition of Light:DayObservation Facility, Elevation:HWY,336 ft mslDistance from Accident Site:2 Nautical MilesObservation Time:11:00 LocalDirection from Accident Site:360°Lowest Cloud Condition:ClearVisibility10 milesLowest Ceiling:NoneVisibility (RVR):
Observation Time:       11:00 Local       Direction from Accident Site:       360°         Lowest Cloud Condition:       Clear       Visibility       10 miles
Lowest Cloud Condition: Clear Visibility 10 miles
Lowest Ceiling: None Visibility (RVR):
Wind Speed/Gusts: 7 knots / Turbulence Type / Forecast/Actual:
Wind Direction: 300° Turbulence Severity / Forecast/Actual:
Altimeter Setting: 30.05 inches Hg Temperature/Dew Point: 33°C / 16°C
Precipitation and Obscuration: No Obscuration; No Precipitation
<b>Departure Point:</b> Warrenton, VA (3VA3) <b>Type of Flight Plan Filed:</b> None
<b>Destination:</b> Warrenton, VA (3VA3) <b>Type of Clearance:</b> None

## **Airport Information**

Airport:	Flying Circus Aerodrome 3VA3	Runway Surface Type:	Grass/turf
Airport Elevation:	315 ft msl	<b>Runway Surface Condition:</b>	Dry
Runway Used:	02	IFR Approach:	None
Runway Length/Width:	2000 ft / 150 ft	VFR Approach/Landing:	Precautionary landing

## Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	38.550277,-77.715835

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#### **Administrative Information**

Investigator In Charge (IIC):	Gretz, Robert
Additional Participating Persons:	Ramon Smeltz; FAA/FSDO; Herndon, VA
Original Publish Date:	December 20, 2010
Last Revision Date:	
Investigation Class:	<u>Class</u>
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=76591

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, "accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person" (Title 49 Code of Federal Regulations section 831.4). Assignment of fault or legal liability is not relevant to the NTSB's statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 United States Code section 1154(b)). A factual report that may be admissible under 49 United States Code section 1154(b) is available here.

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